

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT

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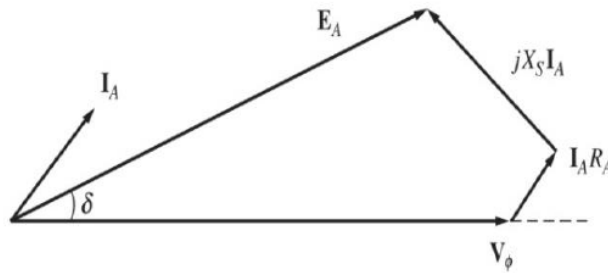
EE-306

Key Solution

Quiz 5 Sec.: I.D.: Ser#: Name:

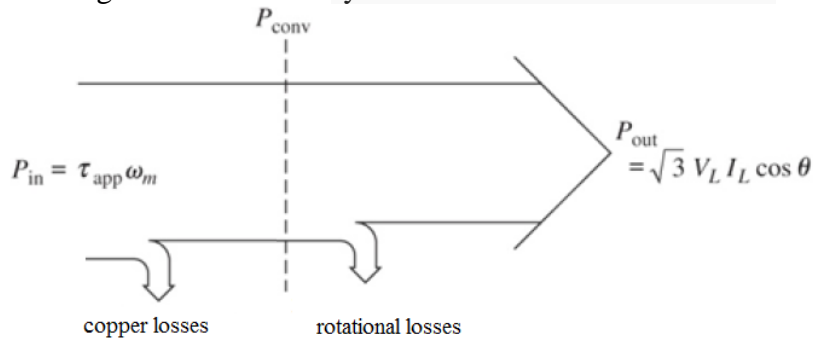
Circle the correct answer.

1) The phasor diagram shown below is for (3 Marks)



- a. An over-excited synchronous generator.
- b. An under-excited synchronous generator.**
- c. An over-excited synchronous motor.
- d. An under-excited synchronous motor.

2) The power flow diagram below is for synchronous Generators. (2 Marks)



- a. True.
- b. False.**

3) The output power of a synchronous motor with negligible armature resistance is (3 Marks)

$$P_{out} = \frac{3|V_t||E_A|\sin\delta}{X_S}$$

- a. True.
- b. False.**

4) The torque angle for a synchronous motor of leading and lagging power-factor loads is negative. (2 Marks)

- a. True.**
- b. False.